

## ANNUAL ADDRESS.

Report on a Collection of Hymenoptera Made in Guam,  
Marianne Islands.

BY DAVID T. FULLAWAY.

The species of hymenoptera listed and described below were taken by the writer in 1911 on the island of Guam in the course of some entomological work for the local government experiment station. Fifty-three species are included, of which 11 are described as new to science. It is regretted that many species can only be referred to their genera but in view of natural difficulties surrounding descriptive work in certain groups of the hymenoptera and the inability of the writer to use any of the large collections for comparison of material, it seemed the only safe plan. The most interesting feature of the work is the recovery and comparatively easy recognition of Holmgren's species collected by the Swedish expedition in the "Eugenie" in 1851-3. This list does not include the Formicidae, which were done by Dr. W. M. Wheeler of Harvard University, cf. Jour. N. Y. Ent. Soc. vol. XX (1), p. 44.

## APIDAE.

1. *Apis mellifera* Linn.  
Introduced from the Hawaiian Islands in 1907.

## MEGACHILIDAE.

2. *Lithurgus* sp.
3. *Megachile* sp.
4. *Megachile* sp.

## ANDRENIDAE.

5. *Halictus* sp.

## PROSOPIDAE.

6. *Prosopis* sp.

Dr. Perkins has kindly furnished me with the following note on this species: "Belongs to group with largely developed wings of 7th ventral segment, a bifurcate apex to 8th segment,

the bifurecations expanded as in *Prosopis cressoni*; see Metz's paper, Tr. Am. Soc. XXXVII., pl. IV, fig. 53 etc. This group is American, Austral. and European, and probably cosmopolitan."

## LARRIDAE.

7. *Pison* sp.
8. *Pison* sp.
9. *Pison* sp.

## VESPIDAE.

10. *Polistes hebraeus* Fab.
11. *Polistes semiflavus* Holm.
12. *Icaria marginalata* Sauss. = *I. cagayaensis* Ashm.

## EUMENIDAE

13. *Rhynchium brunneum* Sauss.

## BETHYLIDAE.

14. *Gonatopus* sp.
15. *Scleroderma duarteum* n. sp.

♀ dimorph. Length 5mm. Black, smooth and shining, with a delicate microscopic reticulation, and sparsely clothed with pale golden hairs set in shallow punctures. Antennae 13-jointed, honey yellow, outwardly fuscous, scape long, clavate and curved outwardly, pedicel much shorter, obconic, funicle filiform, less than twice the length of the scape, joints short and subequal except the last, which is nearly twice as long as the preceding. Legs honey yellow, short and stout, femora greatly swollen.

Wings narrow with two short completely closed basal cells, the basal nervure reaching the costa, the nervures brown and the disc largely infuscate.

Hab. Chance's ranch, Jigo, Gnam. Described from 9 specimens bred from a coleopterous larva in cacao (*Theobroma cacao*). Named for Cap't. P. Duarte.

16. *Parasierola cellularis* Say.

## SCELIONIDAE.

17. *Caloteleia elegans* Perk.
18. *Macroteleia manilensis* Ashm.
19. *Platyscelio wilcoxi* n. sp.

♂ Length about 4mm. Greatly flattened, with a sparse clothing of fuscous hairs which is thicker on the two last abdominal segments.

Head subquadrate, horizontal, very thin anterior-posteriorly (dorso-ventral), smooth and shining, the vertex somewhat striated, a medial furrow on the face which bifurcates dorsally just below the apical ocellus and ventrally above the insertion of the antennae; eyes elongate elliptic and convex, basal ocelli distant on the summit of the vertex; antennae 12-jointed and flattened, the scape greatly dilated apically, pedicel small, obconic, joints of the flagellum small, expanding outwardly, the last three or four subquadrate. Prothorax, mesothorax except scapulae and abdomen longitudinally punctuate-striate, thorax otherwise smooth and shining; prothorax narrowed before into a neck, mesonotum ample, parapsidal grooves well defined, the anterior portion of the scapulae punctate, the scutellum transverse, posteriorly a single row of punctures interrupted in the middle; metathorax with some fine striations and a medium furrow bifurcating behind. Abdomen broadly attached, elongate elliptic and depressed, the intersegmental furrows broad but shallow, a well-defined lateral carina on both sides from base to middle of 5th segment. Legs slender, wings fairly long and narrow, the disc hairy, more or less clouded, marginal vein moderately long, about one-fourth the length of the submarginal, the distal end at about the middle of the wing, radius short, postmarginal absent.

Black except the scape, pedicel, first five joints of the flagellum and the tip of the abdomen, which are rufo-testaceous. The legs are testaceous; the veins of the wings brown.

Hab. Guam. Described from a single specimen. Named for Mr. George N. Wilcox, U. S. Navy.

## PLATYGASTERIDAE.

### 20. *Allotropia thompsoni* n. sp.

♀ Length .75mm. Brown, smooth and shining, feebly but uniformly punctate, the punctures enclosing short hairs. Head transverse, slightly convex, eyes black, ocelli red, arranged in a triangle, the lateral members of which are close to the inner margins of the eyes, antennae 9-jointed, inserted on either side and at about the middle of the clypeus, scape large, clavate, pedicel smaller, obconic, the three funicle joints filiform, a little longer than the pedicel, four-jointed club about as long as the pedicel and funicle together and somewhat expanded. Prothorax broadly joined to the head and extremely narrow, mesothorax convex, mesonotum subquadrate, parapsidal grooves distant, scutellum obtusely triangular; metathorax indistinct. Abdomen short ovate, depressed. Legs moderate. Wings with a fuscous cloud in the middle of the disc, submarginal vein ending in a club near the costal margin, before the middle of the wing.

Hab. Guam. Described from a single specimen bred from a mealybug (*Pseudococcus* sp.) on *Abrus abrus*. Named for

Mr. J. B. Thompson, Director of the Government Agricultural Experiment Station at Guam.

### DIAPRIIDAE.

21. *Phaenopria* sp.
22. *Tropidopria* sp.

### CHALCIDIDAE.

23. *Chalcis* sp.
24. *Neochalcis* sp.
25. *Stomatocerus* sp.
26. *Conura* sp.

### EUCHARIDAE.

27. *Chalcura upeensis* n. sp.

♂ Length about 4mm. Punctate, the notum coarsely folded or reticulate, and hairy, the abdomen with a few punctures, otherwise smooth and shining. Head fairly large and convex, triangular in outline, anterior-posteriorly thin, the front longitudinally striate, eyes small and convex, the lower margin distant from the base of the mandibles, face and cheeks rather broad, occipital margin distinct on the vertex, the ocelli in a straight line below, antennae 12-jointed, pubescent, inserted on the middle of the face, scape scarcely as long as the first joint of the flagellum, pedicel very short, 2nd flagellar joint a little more than half the length of the first, joints 5 to 10 subequal, joint 11 one and one-half times 10, and 12 twice 11, joints 4 to 11 with a long ramus apically on the outer side; clypeal sutures distinct; mandibles large and falcate with two strong teeth near the base; trophi slender. Thorax extremely short and convex, pronotum invisible from above, mesonotum well developed, parapsidal furrows convergent but not quite meeting at the base, inner angles of the axillae almost or quite meeting in the middle, scutellum triangular, rounded behind, posterior face and the metathorax almost vertical. Abdomen long petiolate, hatchet shaped, the petiole longitudinally striate. Legs slender, the coxae fairly stout. Wings much narrowed basally, the disc hairy and clouded, marginal and post-marginal veins fairly long, radius short and stigmatic.

Metallic green with purplish reflections, the abdomen with the exception of the petiole dark brown. Legs and basal joint of the antennae light brown, the flagellum fuscous brown, mandibles honey yellow, wing veins almost black, a brownish suffusion beneath the stigma.

Hab. Upe, Guam, in the forest. Described from a single specimen.

### AGAONIDAE

28. *Blastophaga innumerabilis* n. sp.

♀ Length 1.25mm. Black, smooth and shining, the anterior portion of the head including the oral cavity, mandibles and first three joints of the antennae, and the legs honey yellow. The head horizontal, subquadrate, thin anterior-posteriorly (dorso-ventral), a broad and deep groove on the face from the vertex to the mouth, which has a rather large opening, defined laterally by the large, bidentate and acutely pointed mandibles, which reach the base of the eyes; antennae 11-jointed, inserted together just above the mouth, 1st joint short and stout, dilated in front, 2nd slenderer and about twice as long as wide, 3rd with the basal portion short while the outer face is produced apically into a long spine and the inner face receives the short 4th joint, 5th and 6th joints larger than the 4th, a little longer than wide, 7th to 11th joints widening outwardly, the individual segments (except the last) cyathiform, and each from the 5th outwardly bearing broad plate-like hairs. Thorax rather flat, pronotum transverse, narrowed before, the posterior lateral angles produced, the hind margin therefore curved inwardly; mesonotum also transverse, parapsidal furrows merely indicated behind, scutellum fairly long, the hind margin rounded and two longitudinal grooves on the disc laterally; metathorax broad and truncate, posterior angles well defined. Abdomen about as long as the thorax and somewhat compressed, broadly joined basally, and apically produced to a point, the dorsum ridged; ovipositor hair-like and longer than the abdomen. Legs moderate, front and hind femora swollen. Wings hyaline, marginal and postmarginal veins subequal, stigmal vein a trifle shorter and almost perpendicular.

Hab. Guam. Described from many specimens.

### ENCYRTIDAE.

- 29. *Eupelmus* sp.
- 30. *Eupelmus* sp.
- 31. *Pentelicus* sp.
- 32. *Ooencyrtus* sp.

### PTEROMALIDAE.

- 33. *Pteromalus* sp.
- 34. *Isoplata* sp.
- ✓35. *Tomocera californica* How.
- ✓36. *Spalangia cameroni* Perk.
- 37. *Spalangia metallica* n. sp.

♀ Length about 1mm. Smooth and shining, the head oblong.

wider than the thorax, moderately thick and convex, the anterior margin medially incised; ocelli arranged in a small triangle close to the vertex, eyes small and dorsal, face and cheeks broad; antennae fairly long, cylindrical and hairy, 10-jointed, inserted above the recessed mouth, scape not reaching the level of the vertex, pedicel small and obconic, joints of the flagellum small and subequal except the last which is small and indistinctly separated from the penultimate joint. Thorax convex, prothorax well developed, nearly as long as the rest of the thorax and narrowed in front to a small neck which is transversely striated, mesothorax fairly long, the parapsidal furrows on mesonotum distinct and much bent towards the sides, the inner angles of the axillae meeting in the middle, scutellum flat, a trifle longer than wide, parallel sided and straight across the hind margin; metathorax transverse, the hind margin rounded. Abdomen small, petiolate, broadly oval and depressed, the ovipositor slightly exerted. Posterior legs longer than the others, the coxae especially long and well developed. Wings rather narrow, with a marginal fringe, marginal vein rather long, stigmal short, a brownish cloud on the disc beneath; where the marginal and submarginal veins merge, the costal cilia are greatly thickened and tangled, forming a pseudo-spine.

Pale or reddish to olivaceous brown with metallic reflections, the head, last five antennal joints, mesothorax and abdomen dark, blue to black and metallic; basal joints of the antennae and the legs from straw yellow (or almost white) to reddish brown.

Hab. Guam. Described from a single specimen.

### ELASMIDAE.

38. *Elasmus philippinensis* Ashm.

### EULOPHIDAE.

39. *Closterocerus* sp.  
 40. *Coccophagus orientalis* How.  
 41. *Aphelinus* sp.  
 42. *Tetrastichus hagenowii* Ratzeburg.  
 43. *Cirrospiloideus guamensis* n. sp.

♀ Length 2.5mm. Microscopically reticulate and shining with a few sparse hairs. Head transverse but not especially thin, eyes fairly large and convex, face and cheeks wide, the temples rounded, occiput deeply impressed, ocelli arranged in a triangle on the vertex, antennae filiform, 10-jointed, inserted on the middle of the face, scape reaching the vertex, pedicel obconic, four funicle joints longer by half than the scape, club short and pointed, indistinctly divided; clypeus distinct, the labrum shortly projecting. Prothorax greatly narrowed in front, mesonotum transverse, parapsidal grooves distinct.

inner angles of axillae not quite meeting in the middle, scutellum broad and flat with two distinct longitudinal grooves, the hind margin very slightly curved; metathorax declivous, with two median carinae which converge behind. Abdomen conic-ovate, collapsed after death. Legs fairly long and slender. Wings hairy, marginal vein long, post-marginal and stigmal veins shorter and equal.

Yellowish to testaceous, the ocellar triangle, upper margin of occiput, pronotum, metathorax and part of the abdomen black, eyes red, antennae outwardly fuscous brown.

Hab. Guam. Described from several specimens bred from lepidopterous miners in "abas duendes" and *Terminalia catappa*.

Closely corresponding male specimens differ as follows: Length less than 1mm. Antennal scape expanded and leaf-like. Abdomen short, depressed and broadly rounded at the apex. Head, prothorax, and abdomen outwardly black. Bred from lepidopterous miners in *Heritiera littoralis*.

#### TRICHOGRAMMIDAE.

44. *Trichogramma* sp.

#### EVANIIDAE.

45. *Evania appendigaster* Linn.

#### ICHENEUMONIDAE.

46. *Lissopimpla nigricans* n. sp.

♀ Length 7mm. Smooth and shining, the head transverse, anteriorly punctate and hairy, the punctuation more pronounced on the clypeus and labrum, eyes large and convex, emarginate within and contiguous with the occipital margin behind, ocelli large and arranged in an obtuse triangle near the vertex, face and cheeks rather narrow, antennae setaceous, nearly as long as the body, 43-jointed, inserted near the middle of the face in rather prominent sockets, labrum fairly large and subquadrate, clypeal suture distinct, a broad median longitudinal elevation between it and the antennal sockets. Thorax convex, elongate, pronotum invisible from above, mesonotum anteriorly punctate, lobed, parapsidal furrows broad and deep, meeting beyond the middle but not attaining the posterior margin, scutellum reduced to a punctate knob or disc with lateral carinate wings enclosing a broad deep basal fovea, postcutellum continuous with the knob or disc of the scutellum, the narrow transverse areas on either side towards the wings greatly sunken, mesopleura clothed with short

white hairs, the hind border costate, metathorax subquadrate and rugose, petiolar area hexagonal and more or less smooth. Abdomen highly polished, elongate, depressed, widening slightly outwardly, apically somewhat compressed, 1st segment rather long, 2nd subquadrate, others shorter and transverse, segments 2-4 with transverse median depression and anterior lateral angles separated by deep grooves. Ovipositor exerted about half the length of the abdomen. Legs moderately stout, posterior pair larger, with greatly lengthened coxae, a spine on the lower face of the femur and a double row of short spines on the outer face of the tibia and tarsus. Claws stout and simple. Wings fuliginous, veins and stigma almost black, areolet quadrate, narrowed outwardly, receiving the 2nd recurrent nervure at the lower outer angle, submedian cell a trifle shorter than the median, discoidal nervure arising from the lower third of the 2nd discoidal cell, transverse median nervure of the hind wings broken well beyond its middle.

Black with some brownish tints, face and basal joints of the antennae reddish brown, front legs brown, middle and hind legs and abdomen deep reddish brown.

Hab. Guam. Described from three female specimens.

47. *Echthromorpha continua* (Brulle). ?

48. *Pauiscus latro* Holm.

#### ALYSIDAE.

49. *Aspilota pitiensis* n. sp.

♂ Length about 2mm. Black, the two basal joints of the antennae, prothorax, abdomen basally and legs pale to reddish brown; smooth and shining, the head transverse, temples broad and rounded; face broad, convex, retracted below, antennae inserted at about the middle on a well-defined frontal prominence, setaceous, 21-jointed, mandibles exerted, 3-dentate, maxillary palpi 5-jointed, long; labial palpi 4-jointed, short; pronotum narrow in front and extending on sides almost to the tegulae; mesonotum convex, without parapsides, scutellum small, triangular, with a deep forvea at the base divided by a median carina; metathorax short, declivious, with a well-defined petiolar area; abdomen elongate oval, petiolate; legs long and slender; wings hyaline, veins black, stigma long and slender, marginal cell complete, radius reaching the tip of the wing, recurrent nervure joining the 2nd cubital cell.

Hab. Guam. Described from a single specimen.

#### BRACONIDAE.

50. *Macrocentrus pallidus* n. sp.

♀ Length 4mm. Flavo-testaceous, eyes, ocelli and tips of man-



dibles black; feebly punctate, shining, clothed with pale hairs. Head transverse, wider than the thorax and fairly thick; eyes round and bulged; ocelli large, arranged in a small triangle near the vertex; face wide, cheeks narrow; clypeus prominent; antennae setaceous, a trifle longer than the body, inserted above the middle of the face, 45-jointed; trophi pendulous, slender, maxillary palpi 5-jointed, labial palpi 3-jointed. Pronotum invisible from above; mesonotum lobed, parapsidal grooves convergent, meeting before the posterior margin, scutellum small, convex, postscutellum represented by two large, shallow foveae with smooth bottoms; metathorax arched, shallowly rugose. Abdomen elongate, slender, compressed towards the apex, 1st segment rather long, 2nd and 3rd shorter, following segments transverse; ovipositor exerted and longer than the abdomen. Legs slender, hind coxae longer than the others. Wings hyaline with well-developed stigma and parastigma, veins light to fuscous brown, marginal cell complete, radius not reaching tip of wing, 3 cubital cells, submedian cell longer than the median, subdiscoidal nervure joining the discoidal below the middle.

♂ Paler, yellowish, white beneath, abdomen slender, depressed.

Hab. Guam. Described from 2 ♀ and 2 ♂ specimens.

51. *Phanerotoma melanocephala* n. sp.

♀ Length 2.75 mm. Testaceous, the head, antennae and tip of abdomen fuscous, minutely shagreened or granulated and opaque, the abdomen longitudinally striated. Head subquadrate, slightly wider than the thorax; eyes black, prominent, bulged; ocellar area small, black; temples and face broad, antennae inserted at about the middle, a trifle shorter than the body, setaceous, 23-jointed; clypeal sutures distinct, laterally ending in a fovea, trophi short and slender; occiput concave and distinctly margined. Pronotum invisible from above; mesonotum subquadrate, parapsidal grooves only faintly indicated, scutellum small, triangular; metanotum flat and parallel sided. Abdomen oval, convex above, concave beneath, only three visible segments. Legs moderately long and stout. Wings hyaline, stigma and veins fuscous, marginal cell complete, radius not reaching tip of wing, 1st abscissa extremely short, recurrent nervure interstitial with the 1st cubital cross vein, submedian cell much longer than the median, subdiscoidal vein joining the discoidal near the posterior angle of the cell.

Hab. Guam. Described from a single specimen.

52. *Apanteles guamensis* (Holm.)

53. *Spathius* sp.

**Election of Officers for 1913.**

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